



## Topics to be Covered in 9<sup>th</sup> Class Mathematics

Topic	Content
Number Systems	Introduction
Number Systems	Irrational Numbers
Number Systems	Real Numbers and their Decimal Expansions
Number Systems	Operations on Real Numbers
Number Systems	Laws of Exponents for Real Numbers
Polynomials	Introduction
Polynomials	Polynomials in One Variable
Polynomials	Zeroes of a Polynomial
Polynomials	Factorisation of Polynomials
Polynomials	Algebraic Identities
Polynomials	Summary
Coordinate Geometry	Introduction
Coordinate Geometry	Cartesian System
Coordinate Geometry	Summary
Linear Equations In Two Variables	Introduction

Linear Equations In Two Variables	Linear Equations
Linear Equations In Two Variables	Solution of a Linear Equation
Linear Equations In Two Variables	Summary
Introduction To Euclid's Geometry	Introduction
Introduction To Euclid's Geometry	Euclid's Definitions, Axioms and Postulates
Introduction To Euclid's Geometry	Summary
Introduction To Euclid's Geometry	LINES AND ANGLES
Introduction To Euclid's Geometry	Introduction
Introduction To Euclid's Geometry	Basic Terms and Definitions
Introduction To Euclid's Geometry	Intersecting Lines and Non-intersecting Lines
Introduction To Euclid's Geometry	Pairs of Angles
Introduction To Euclid's Geometry	Lines Parallel to the Same Line
Introduction To Euclid's Geometry	Summary
Triangles	Introduction
Triangles	Congruence of Triangles
Triangles	Criteria for Congruence of Triangles
Triangles	Some Properties of a Triangle

Triangles	Some More Criteria for Congruence of Triangles
Triangles	Summary
Quadrilaterals	Properties of a Parallelogram
Quadrilaterals	The Mid-point Theorem
Quadrilaterals	Summary
Quadrilaterals	CIRCLES
Quadrilaterals	Angle Subtended by a Chord at a Point
Quadrilaterals	Perpendicular from the Centre to a Chord
Quadrilaterals	Equal Chords and their Distances from the Centre
Quadrilaterals	Angle Subtended by an Arc of a Circle
Quadrilaterals	Cyclic Quadrilaterals
Quadrilaterals	Summary
Heron's Formula	Area of a Triangle – by Heron's Formula
Heron's Formula	Summary
Surface Areas And Volumes	Surface Area of a Right Circular Cone
Surface Areas And Volumes	Surface Area of a Sphere
Surface Areas And Volumes	Volume of a Right Circular Cone

Surface Areas And Volumes	Volume of a Sphere
Surface Areas And Volumes	Summary
Statistics	Graphical Representation of Data
Statistics	Summary
Proofs in Mathematics	Introduction
Proofs in Mathematics	Mathematically Acceptable Statements
Proofs in Mathematics	Deductive Reasoning
Proofs in Mathematics	Theorems, Conjectures and Axioms
Proofs in Mathematics	What is a Mathematical Proof?
Proofs in Mathematics	Summary
Introduction To Mathematical Modeling	Introduction
Introduction to Mathematical Modeling	Review of Word Problems
Introduction to Mathematical Modeling	Some Mathematical Models
Introduction to Mathematical Modeling	The Process of Modelling, its Advantages and Limitations
Introduction to Mathematical Modeling	Summary